


Physicians for Social Responsibility, Robert K. Musil, Ph.D., MPH,
Executive Director and CEO

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Physicians for Social Responsibility
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May 25, 2004

Mr. Thomas Grim, L-293
U.S. Department of Energy,
National Nuclear Security Administration
Livermore Site Office, SWEIS Document Manager
7000 East Avenue
Livermore, CA 94550-9234

Fax: (925) 422-1776
Email: tom.grim@oal.doe.gov

RE: Comments on the Department of Energy's Site-Wide Environmental Impact Statement (SWEIS) for Continued Operations at Lawrence Livermore National Laboratory (LLNL).

Dear Mr. Grim:

Physicians for Social Responsibility was founded in 1961 to educate the public about the dangers of nuclear weapons and nuclear war. In an era when schoolchildren were still trained to "survive" a nuclear attack in Duck and Cover exercises, the need for PSR was clear.

In a series of groundbreaking articles in the *New England Journal of Medicine*, PSR physicians detailed the threat to America, and to the entire world, from a nuclear war. PSR physicians documented the presence of strontium 90—a radioactive by-product of nuclear tests—in children's teeth demonstrating that nuclear testing has serious public health implications. This work contributed much to the agreement of the Partial Test Ban in 1963, that ended above ground nuclear testing.

In the following decades, our efforts to educate the public about the dangers of nuclear war grew into an international movement, with the founding of the International Physicians for the Prevention of Nuclear War (IPPNW). PSR shared in the Nobel Peace Prize awarded to IPPNW in 1985.

In the late 1980s, PSR's work on the health consequences of the development, testing and production of nuclear weapons were brought together in the publication *Dead Reckoning*. A decade of work succeeded in creating a compensation program for workers made sick


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U.S. AFFAIRS OF INTERNATIONAL PHYSICIANS FOR THE PREVENTION OF NUCLEAR WAR

SW/SPEIS
PUBLIC INVOLVEMENT
DOCUMENT 1037

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during the course of their work in the nuclear weapons complex, as well as in the closure of facilities such as Rocky Flats where egregious abuses of health and safety legislation were the norm.

Given this 40 year track record of analyzing nuclear weapons policies and activities through the lens of American public health and medical needs, we are writing to you to express our deep concern with the health and environmental risks posed by the expanded nuclear weapons mission for the Lawrence Livermore National Laboratory (LLNL) into the indefinite future. We appreciate your focused attention to this matter. Below, we have outlined a number of specific concerns that, taken cumulatively, lead us to the conclusion that the Site Wide Environmental Impact Statement (SWEIS) for the continuing operation of LLNL is so deficient in information and analysis that it must be fixed and re-circulated in draft form. Further the cumulative health impact on residents of the Livermore area could be so appalling as to warrant a serious reconsideration of many of these proposed activities. This would allow the community, the regulators, and the legislators to have the opportunity to evaluate the new information that is requested in these comments. Our specific concerns are:

1. The same day of the public hearings for the SWEIS, April 27, 2004, the Congressional Subcommittee on National Security, Emerging Threats, and International Relations for the Committee on Government Reform held a hearing on the security of nuclear materials. The hearing highlighted potentially insurmountable problems with plutonium and highly enriched uranium at certain Department of Energy (DOE) sites, with a focus on the vulnerability of nuclear materials storage at LLNL. On May 7, 2004, Energy Secretary Spencer Abraham delivered a speech on the deficiencies in the security of nuclear materials at LLNL and other DOE sites. The Energy Secretary made a commitment to consider removing the special nuclear materials at LLNL by 2005. This recent acknowledgment by the DOE that security at LLNL is questionable makes it imperative that the SWEIS evaluate an alternative that would remove all special nuclear materials from LLNL. These acknowledgements make this not only a reasonable option, but one that should be evaluated because it is a foreseeable outcome within the next decade at LLNL.

2. Instead of reducing the amount of special nuclear materials on-site at LLNL, this plan proposes to more than double the limit for plutonium at Livermore Lab from 1,540 pounds to 3,300 pounds. Additionally, under the Proposed Action, the administrative limit for highly enriched uranium in Building 239 would increase from 55 pounds to 110 pounds. Seven million people live in surrounding areas, and residences are built right up to the fence. Plutonium is difficult to store safely because, in certain forms, it can spontaneously ignite and burn. Moreover, it poses a criticality risk when significant quantities are stored in close proximity. The amount of plutonium proposed for LLNL is sufficient to make more than 300 nuclear bombs. Because of the health risks, the proliferation dangers, storage hazards, and very serious security concerns, we believe it is irresponsible to store plutonium, highly enriched uranium and tritium at LLNL. We are calling upon the DOE to de-inventory the plutonium, highly enriched uranium and tritium stocks at LLNL rather than to increase them.

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Executive Director and CEO

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| 3/34.01 | 3. The SWEIS proposes to increase the at-risk limits for tritium ten fold, from just over 3 grams to 30 grams. The SWEIS proposes to increase the at-risk limit for plutonium from 44 pounds to 132 pounds. We believe it is unsafe to increase the amount of tritium and plutonium that can be "in process" in one room at one time. LLNL has a history of criticality violations with plutonium and releases of both tritium and plutonium, making it evident that these amounts should be decreased, rather than increased. |
| 4/33.01, 25.01 | 4. This plan will revive a project that was canceled more than 10 years ago because it was dangerous and unnecessary. The project was called Plutonium - Atomic Vapor Laser Isotope Separation (AVLIS). Now it is called the "Integrated Technology Project" (ITP) and the "Advanced Materials Program" (AMP). This is a scheme to heat and vaporize plutonium and then shoot multiple laser beams through the vapor to separate out plutonium isotopes. The ITP / AMP is a health risk and a nuclear proliferation nightmare. We believe the ITP and AMP work should be cancelled as the Plutonium AVLIS was cancelled in 1990 - for time permanently. |
| 5/27.01 | 5. This plan makes Livermore Lab the place to test new manufacturing technologies for producing plutonium pits for nuclear weapons. A pit is the softball-sized piece of plutonium that sits inside a modern nuclear weapon and triggers its thermonuclear explosion. DOE says these new technologies will then be used in a new bomb factory, called the Modern Pit Facility (MPF). Public and Congressional opposition to the MPF has caused its delay this year. The Livermore Lab plutonium pit program goes full-speed ahead in the wrong direction. It will enable the MPF and production of 150 - 450 plutonium bomb cores annually, with the ability to run double shifts and produce 900 plutonium pits per year. This production capability would approximate the combined nuclear cores of France and China - each year. We call upon the DOE to halt all work on plutonium pit production technologies at Livermore Lab. We believe it is premature for the DOE to spend taxpayer dollars on this technology and the prudent and reasonable outcome is to delay or cancel this project. |
| 6/37.01 | 6. This plan will ask plutonium, highly-enriched uranium and large quantities of lithium hydride to experiment in the National Ignition Facility mega-laser when it is completed at Livermore Lab. Using these materials in the NIF will increase its usefulness for nuclear weapons development, including for the design of new types of nuclear weapons. It will also make the NIF more hazardous to workers and the environment. This is not only dangerous to people's health and safety, and a proliferation risk, but it is sure to result in an inordinate cost to the taxpayer. No cost estimate associated with this proposal has been released to date. We ask the DOE to cancel these dangerous, polluting, proliferation-promotive and unnecessary new experiments proposed for the NIF. |
| 7/26.01 8/26.03 | 7. The SWEIS reveals plans to manufacture tritium targets at LLNL. The tritium-filled targets are the radioactive fuel pellets that the NIF's 192 laser beams will "shoot" in an attempt to create a thermonuclear explosion. Producing the targets will increase the amount of tritium that is used in any one room at Livermore Lab from the current limit of just over 3 grams to 30 grams - nearly 10-fold more. In the mid-1990's, LLNL stated that |

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| 9/26.04 cont. | target fabrication was to occur off-site because of LLNL's proximity to large populations. Livermore Lab has a history of tritium accidents, spills and releases. The NIF will increase the amount of airborne radioactivity emanating from LLNL. We call on DOE to cancel plans to manufacture tritium targets for NIF at Livermore Lab. Further, we urge cancellation of the NIF megaser. Cancellation of NIF is a reasonable alternative that should be fully analyzed in the SWEIS. |
| 10/39.01 | 8. This plan also calls for Livermore Lab to develop diagnostics to "enhance" the nation's readiness to conduct full-scale underground nuclear tests. This is a dangerous step back to the days of unregulated nuclear testing. All work at LLNL, to reduce the time it takes to conduct a full-scale underground nuclear test should be terminated immediately. If LLNL is to be involved in even a potential resumption of nuclear testing, the full environmental impact of such activities wherever they may occur should be included in the LLNL SWEIS. |
| 11/35.01 | 9. This plan mixes bugs and bombs at Livermore. It calls for co-locating an advanced bio-warfare agent facility (BSL-3) with nuclear weapons activities in a classified area at Livermore Lab. The plan proposes genetic modification and aerosolization (spraying) with live anthrax, plague and other deadly pathogens. This could weaken the international biological weapons treaty -- and it poses a risk to workers, the public and the environment here in the Bay Area. The draft SWEIS does not adequately describe these programs, or the unique security, health and environmental hazards they present. Construction should be halted on the portable BSL-3 facility. All plans to conduct advanced bio-warfare agent (BSL-3) research on site at LLNL should be terminated. |
| 12/14.01 | 10. There are 108 buildings identified at LLNL as having potential seismic deficiencies relative to current codes. The SWEIS should include a complete list of these buildings and an accounting of the ones that house or may house hazardous, radiological and biological research materials. LLNL is located within 1 kilometer of two significant earthquake faults, including the Las Positas Fault Zone less than 200 feet from the LLNL boundary. How can we mitigate harm done from an earthquake that damages these buildings before they are brought up to code? We urge the Livermore Lab to stop any work with hazardous, radioactive or biological substances that may be occurring in any building that does not comply with federal standards. |
| 13/22.01 | 11. A contractor will be paid to package and ship more than 1,000 drums of transuranic and mixed transuranic waste to the WIPP dump in New Mexico, yet the SWEIS says this is exempt from environmental review. This work in its entirety must be included in the review. |
| 14/20.05 | 12. The DOE does not acknowledge in the SWEIS that the double-walled shipping containers described in the document may be replaced by less health - protective single-lined containers. We believe that no waste should be shipped in single-walled containers and the SWEIS should provide a guarantee to that effect. The likely impact of an accident involving any one of these shipments would be a significant increase in cancers and other |

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|-------------------|---|
| 14/20.05 cont. | conditions in the affected population. A full analysis of these likely effects needs to be undertaken. |
| 15/01.01 | 13. The Purpose and Need statement in the SWEIS relies heavily upon the US Nuclear Posture Review, which calls for an aggressive modernization and manufacturing base within the US nuclear weapons complex. This stands in stark contrast to the binding legal mandate to shift "from developing and producing new weapons designs to dismantling obsolete weapons and maintaining a smaller weapons arsenal". We believe a revised Purpose and Need statement should accurately reflect the Livermore Lab's legal responsibility with regard to US law, including US obligations under the nuclear Non-Proliferation Treaty (NPT). While Congress has not approved the development and production of nuclear weapons, and remains unlikely to do so, there is no justification for including such work in the Purpose and Need statement. |
| 16/07.01 | Further, the Purpose and Need statement in the SWEIS almost completely omits LLNL's important role in civilian science research. This omission fatally flaws the alternatives analysis in the SWEIS by neglecting to consider the expanded role that civilian science programs at the LLNL could play in the next decade. The alternatives analysis should be revised to consider LLNL's role in light of the commitments in the NPT and the Livermore Lab's civilian science mission as well as the compelling case for removing special nuclear materials (i.e., plutonium and highly enriched uranium) from the LLNL site. Sincerely, Robert K. Musil, Ph.D., MPH Executive Director and CEO, Physicians for Social Responsibility. |

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| | April 21, 2004 |
| | Dear Mr. Grimm: |
| | I am writing to oppose the Environmental Impact Statement on Livermore Lab's planned operations for the next ten years. |
| | I am a student in high school in Palo Alto, and frankly, I was shocked to learn that plutonium, bombs, and anthrax are being produced less than two hours away from my home. But no matter where places such as Livermore Labs exist, I strongly oppose the places of their nature. |
| 1/04.01 | Increasing the plutonium limit at labs, reviving plutonium atomic laser separation, and enabling the production of bomb cores would have grave environmental consequences, such as increasing the amount of airborne radioactivity. In addition, our country's production of nuclear (and biological weapons) sends the wrong message. |
| 2/33.01 | |
| 3/27.01 | |
| 4/37.01 | |
| 5/17.04 | |
| 6/01.01 | |

Pollock, Anneliese
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6/01.01
cont. to other countries: that we support these kinds of warfare, and encourage their existence.

1/04.01
cont. I urge you to oppose the ten year plan at Livermore Labs.

Sincerely,
Anneliese Pollock
360 Monroe Drive
Palo Alto, CA 94306
apollock@ix.netcom.com

Portis, Leal
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Lloyd & Leal Portis

From: "Lloyd & Leal Portis" <hopione@sbcglobal.net>
To: <tom@oak.doe.gov>
Sent: Wednesday, April 21, 2004 9:38 PM
Attach: ATT00008.htm
Subject: Plans for Lawrence Livermore Lab

Dear Mr. Grime,

Even though I live many land miles from the Lawrence Livermore Lab I am greatly concerned about the plans of operation for the next 10 years. Of particular concern is the increase in airborne radioactivity from the planned manufacture and testing of potential weapons. Combining this activity with the biowarfare agent research facility seems to be a definite threat to the health and welfare of all Northern Californians. It also appears to be breaking one of our treaty agreements.

1/04.01,
17.04 As a child I lived in the Bay area during World War Two. I grew up with the knowledge that the government released some biological agents outside the Farallon Islands so that the prevailing winds would carry the germs to all the population in the Bay area. The governments plans for the Lawrence Livermore Lab seem to me to be another case of our government not caring about the welfare of its citizens.

Please register my opinion as being against the planned research projects.

Thank you, Leal Portis

I tried to send the above to you by email & times - each time returned

Leal Portis

4/28/2004

Postcard Campaign
Page 1 of 1

Dear DOE:

Here is my comment on the draft Site-Wide Environmental Impact Statement on Livermore Lab operations over the next ten years. The SWEIS calls for major increases in nuclear weapons design and manufacture. New plutonium activities include: raising the inventory from 1,540 pounds to 3,300 pounds; tripling the amount "at risk" at one time; creating prototype bomb cores for a new "Modern Pit Facility;" fissioning plutonium in the NIF mega-laser; and, vaporizing plutonium oxide on-site to separate isotopes. The SWEIS also reveals plans to increase the "at risk" limit for radioactive tritium 10-fold.

1/01.01
2/04.01
3/07.01

I oppose these actions in the SWEIS that will increase nuclear proliferation and damage our environment. I call on you to analyze conversion of the Lab to peaceful purposes as an alternative.

Signed: Dorothy Christen

Address: 6 Mont Vista Ave
Vallejo CA 94590

Priebat, Martha K.
Page 1 of 2

MARTHA K. PRIEBAT
3375 NORTON WAY #2
PLEASANTON, CA 94566

My family moved to Livermore in 1966. I raised my children here and today they are both married and raising their families in this valley. In fact, one family lives within a mile of the Plutonium building. My grandson is now in 3rd grade at Arroyo Seco School, right beside Big Trees park. Both the school grounds and park been shown to be contaminated with plutonium.

1/33.01,
34.01,
17.04

When I read your long and involved document, I felt concerned, even frightened, by your plans to more than double the amount of Plutonium stored at Lawrence Livermore Laboratory. You also want to increase the amount of Tritium ten-fold. This is truly frightening to me. I believe LLNL should be looking for ways to decrease the plutonium and tritium stored in this densely populated area, and was happy to read recently that DOE has some thought of doing this. Our valley is already contaminated with both of these highly radioactive and dangerous elements. Big Trees Park, Arroyo Seco School grounds, and many of our private yards and gardens are contaminated. Over the years, there have been accidental releases of both these elements. The Lab does not have a good history of preventing these accidents. Yet you want to increase the amount of both elements stored at the Lab. You want to double the amount of plutonium currently stored when, as the SWEIS states, "no pathway for LLNL to dispose of excess plutonium currently exists". Will my great-grandchildren grow up with the specter of still-radiating plutonium decomposing here? I would like to see an analysis in the SWEIS of what will be needed to handle possible storage of this still-dangerous Pu 50 or 75 years from now.

2/30.01

This amount of Plutonium stored here would make Livermore into the 6th largest nuclear power in the world! Livermore would have materials equivalent to the current nuclear arsenal in all of France. This would certainly make us at high risk for terrorist attacks. The SWEIS should analyze the need for increased security and show a plan to protect us from terrorist attacks. It should also analyze the extent of loss, casualties and contamination in the case of a successful terrorist attack.

3/25.01

I read that you want to increase the amount of Plutonium that can be stored in one room at any given time by 3-fold, to 132 pounds. The SWEIS does not analyze the increased risk of accidents from this amount of Plutonium stored in close proximity. This analysis should be included in the document.

4/34.01

Next, I would like to talk about your plans for Tritium. This is a gas at all normal temperatures and pressures, a gas that is not absorbed by HEPA filters and, indeed, very easily escapes to the environment. In the past there have been large accidental releases. An early one was tracked as far as Fresno. The current SWEIS mentions expectation of losses of Tritium during experiments. Now you want to increase the amount of "at risk" Tritium 10-fold in order to fill the targets needed for experiments in the NIF. This increase will surely cause more Tritium releases to our environment. In fact, the SWEIS accepts this as a fact. Past studies have shown high level of radioactivity in wines from

Priebat, Martha K.

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4/34.01

cont.

Livermore grapes. The radioactivity decreased as the use of Tritium at the Lab decreased. I think the SWEIS should include an analysis of the increase in risk to the environment from this activity, the increase in radioactivity in the wines, and the commercial effects this will have on our wineries. I also would expect an analysis of

5/16.01

filling the targets at a more isolated place and the risk associated with shipping filled targets to Livermore.

6/08.02

Finally I am faced with the entire idea of increases in plutonium and tritium in this densely populated area. Our valley is already contaminated and this contamination has not been well-studied. Instead of increasing the tritium and plutonium stored and used at LLNL, I would like an analysis of ways to decrease the amount of both elements stored and used at the lab.

7/33.01,

30.01,

34.01

Please consider analyses of long-term storage of Plutonium, increased risk of terrorist attacks, and risk associated with increased storage of both Plutonium and Tritium. Thank you for your time and attention.